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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## **DETAILED ACTION**

### ***Response to Amendment***

The prior 112 and 103 rejections are withdrawn based on the amended claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 13-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Instant claim 13 is indefinite. The claim is indefinite since the base material layer includes a second impregnated paper layer on the uppermost surface of the base material layer, then the second impregnated paper layer is the uppermost surface. As the second impregnated paper layer cannot be placed upon the second impregnated paper layer as it is the same layer.

Claim 16 is indefinite. The claim recites that the blocking layer is “a layer separately formed on the upper surface of the surface layer and a layer formed by impregnating the surface resin layer with a blocking resin”. It is not clear if the blocking layer of claim 16 is the same layer as claim 13, or is an additional layer.

Further the blocking layer of claim 16 is indefinite because it is not clear how many number of layer(s) there are (i.e. “a layer separately formed a layer separately formed on the upper surface of the surface layer and a layer formed by impregnating the surface resin layer with a blocking resin).

Claim 17 is indefinite. It is unclear if the blocking layer of claim 17 is one or more than one layer.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 13-18, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,514,624 to Takemoto in view of US 6,641,926 to Malina et al.**

Per instant claim13: Takemoto teaches a decorative material comprising a surface layer comprising a first impregnated paper layer with a cured (crosslinked) thermosetting resin (substrate 1, FIG. 2 and associated text, patented claim 1). Takemoto further teaches a blocking layer that is formed on an entire surface of the surface layer (sealer 4). See at least 3:15-35, 6:40-50, 6:49-68, and 7:1-33.

Takemoto also teaches a surface resin layer disposed on the blocking layer comprising a cured material of an ionizing radiation curing resin (protective layer 3). See at least 4:10-5:10.

Re claim 13: Takemoto doesn't teach a base material layer comprising or having disposed on it, a second impregnated paper or impregnated with a cured thermosetting resin. However, Takemoto teaches the decorative material composite may be adhered to wood-based substrates (7:60-8:25).

In the analogous art of decorative materials, Malina teaches any number of impregnated cured resin papers (base material layer having a second impregnated paper layer with a cured thermosetting resin and/or base material layer having a second impregnated paper disposed on the uppermost surface of the base layer) including and showing at least two said papers below the substrate in FIG. 2 for balancing, adhesion, and warpage. Depending upon the application, the numbers of impregnated paper sheets are varied. See at least Abstract, and 13:1-60.

It would have been obvious to one having ordinary skill in the art to have modified the bottom impregnated paper (Applicant's first impregnated paper layer) of Takemoto by supplying an additional impregnated paper underneath the composite as taught by Malina for balancing, adhesion, and warpage as discussed above. Further, the amount of variation is dependent upon the end application as taught by Malina cited above and as suggested by Takemoto discussed in detail above.

Re claim 14: Takemoto teaches, a pattern ink layer (2, FIG. 2 and associated text) between both a surface resin layer 3 and blocking layer 4.

Re claim 15: Takemoto teaches, a pattern ink layer (2, FIG. 2 and associated text) between both a first impregnated paper layer (surface layer 1) and blocking layer (primer 5).

Re claim 16: For prior art purposes, the Examiner interprets the blocking layer, if there are at least two blocking layers, in the following ways (See A) and B) below):

A) The blocking layer of Takemoto comprises a layer separately formed on the upper surface of the surface layer. The sealer layer (4) is separately formed on the upper surface of the surface layer. See at least patented claim 1, 4:10-5:10, 6:49-68, 7:55-65 and FIG. 2.

B) Should the blocking layer be three layers, the blocking layer comprises: A) a layer separately formed on the upper surface of the surface layer (sealer 4), B) a surface resin layer impregnated with a blocking resin (surface resin layer 3), and C) a layer formed by impregnating said surface resin layer with a blocking resin). Regarding C), because surface resin layer (3) is impregnated with a blocking resin, the blocking resin forms a layer formed by impregnating the surface resin layer within (3). See at least patented claim 1, 6:49-68, 7:55-65 and FIG. 2.

Re claim 17: For prior art purposes, if the pattern ink layer is between a surface resin layer and blocking layer separately formed on the upper surface of surface layer, the interpretation is as follows:

Takemoto teaches, a pattern ink layer (2, FIG. 2-3 and associated text) between both surface resin layer 3 and blocking layer 4. See at least 4:10-5:10.

Re claim 17: For prior art purposes, if the pattern ink layer is between a blocking layer separately formed on the upper surface of the surface layer and the layer formed by impregnating the surface resin layer with a blocking resin, the interpretation is as follows:

Takemoto teaches the pattern ink layer 2 is between blocking layer 4 and the layer within 3 formed by impregnating the surface resin layer with a blocking layer (see claim 16 rationale B) above).

Re claim 18: Takemoto teaches the blocking layer comprises a cured material of a two component curing type (first and second two pack resins) urethane resin. See at least 6:60-7:35, patented claim 1, 4:10-5:10, 6:49-68, 7:55-65 and FIG. 2.

Re claim 20: Takemoto teaches a substrate adhered to a bottom portion of the base material layer of the decorative material. See at least 7:63-8:20.

Re claim 21: Takemoto teaches the blocking layer comprises a cured material of a two component curing type (first and second two pack resins) urethane resin. See at least 6:60-7:35, patented claim 1, 4:10-5:10, 6:49-68, 7:55-65 and FIG. 2.

**Claims 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,514,624 to Takemoto in view of USPN 6,641,926 to Malina et al. and further in view of USPN 4,339,566 to Rosenkranz et al.**

The combination of Takemoto and Malina is applied above. Takemoto teaches a two component urethane resin as set forth above. The prior art does not teach that the surface resin layer comprises the cured material of the ionizing radiation curing resin comprising an alkylene oxide modified polymerizable compound

Rosenkranz teaches a two component urethane acrylate impregnating resin (2: 31-42) comprised of alkylene oxides, such as ethylene oxide (3:1-33) in the B component for impregnating to strengthen textile webs and coloring purposes. See at least the Abstract.

It would have been obvious to one having ordinary skill in the art to have modified the ionizing radiation curing resin of the surface resin layer in the decorative material of the combination to include or substitute a urethane acrylate resin comprising ethylene oxide as

claimed because Rosenkranz teaches a two component urethane resin as claimed assists as an impregnate used in webs for strengthening and coloring purposes (Abstract, 2: 31-42, 3:1-33).

### ***Reference of Interest***

US 6,162,264 to Miyazaki et al. teaches at col. 32, lines 55-68 impregnating inside surfaces of sheets to migrate into other porous sheets (like claim 6).

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive. Applicant argues the previous 112 2<sup>nd</sup> paragraph rejection. Based on the new claims, the previous rejections under 35 U.S.C.112 2<sup>nd</sup> paragraph have been canceled and amended.

Applicant argues Takemoto doesn't teach impregnated paper, nor the order of the decorative material as argued. However, Takemoto does teach it as set forth in the new rejections. The order argued is not commensurate in scope with the language of the new claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after



the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAMRA L. AMAKWE whose telephone number is (571)272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Ruthkosky can be reached on 571-272-1291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, See at least <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Ruthkosky/  
Supervisory Patent Examiner, Art Unit 1785

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